Roll Number		

SET A

INDIAN SCHOOL MUSCAT
HALF YEARLY EXAMINATION
BIOLOGY

CLASS: XI | Sub. Code: 044 | Time Allotted: 3 Hrs

24.09.2019 | Max. Marks: 70

General Instructions:

*(i) There are a total of **27** questions and four sections in the question paper. **All** questions are compulsory.*
*(ii) Section **A** contains questions number **1** to **5**, very short-answer type questions of **1** mark each.*
*(iii) Section **B** contains questions number **6** to **12**, short-answer type I questions of **2** marks each.*
*(iv) Section **C** contains questions number **13** to **24**, short-answer type II questions of **3** marks each.*
*(v) Section **D** contains questions number **25** to **27**, long-answer type questions of **5** marks each.*
*(vi) There is no overall choice in the question paper, however, an internal choice is provided in two questions of **1** mark, two questions of **2** marks, four questions of **3** marks and all the three questions of **5** marks. In these questions, an examinee is to attempt any one of the two given alternatives.*
(vii) Wherever necessary, the diagram drawn should be neat and properly labeled.

SECTION - A

1. Name the irregular folds of mucosa in the stomach. 1

2. Why are erythrocytes red in colour? 1

OR

In which animal heart pumps deoxygenated blood only?

3. What are podocytes? 1

OR

The abbreviations are used in the context of excretory functions. What do they stand for?

a) ANF b) GFR

4. Which part of the myosin functions as ATPase? 1

5. What happens to the glycogen concentration in the liver cells, when the concentration of adrenaline in the blood stream increases? 1

SECTION – B

6. Write the names of the branches (in proper sequence) of the primary bronchus that enters a lung, till they end up with alveoli. 2

7. i) What is hypertension? 2

ii) Name two vital organs affected by high blood pressure of hypertension.

OR

Name the unique vascular connection between digestive tract and the liver. What is its significance?

8. Differentiate between glucosuria and ketonuria. 2

OR

Name the excretory organ/structure of a) Earthworm b) Planaria c) Amphioxus d) Frog

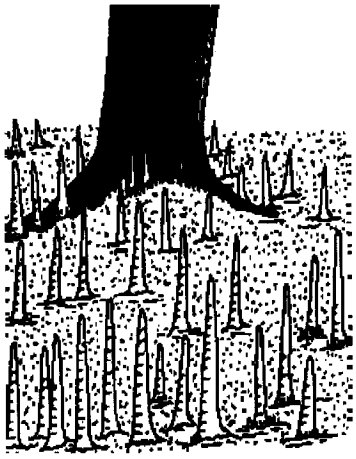
9. Match column I with column II 2

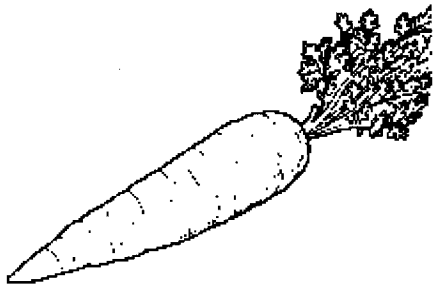
COLUMN I		COLUMN II	
A.	Smooth muscle	(i)	Myoglobin
B.	Tropomyosin	(ii)	Thin filament
C.	Red muscle	(iii)	Sutures
D.	Skull	(iv)	Involuntary

10. What are gonadotropins? Name them. 2

11. Write the modified function of roots shown in the diagram with one example each. 2

A]_____ B]_____





OR

What is pericarp? Name the three different regions of fleshy fruits.

12. a) Name the phloem component absent in monocot stem. 2
b) Name the phloem component absent in primary phloem.
c) Name the phloem elements present in Angiosperms only.

SECTION – C

13. State the role of bile and entericus in human digestion. 3

14. Mention the two stages of breathing cycle and write any two differences between them. 3

OR

Describe how oxygen transport occurs in human.

15. What is the cause of emphysema? How does it affect breathing? 3

16. Shruti's grandfather has to undergo a bypass surgery for his coronary artery disease. Shruti explains to her mother and grandmother all about the disease and also tells how it can be prevented. 3

a) What is coronary artery disease commonly called?

b) What happens in this disease?

c) How can it be avoided by proper life style?

OR

Where are synaptic vesicles found in human body? Name their chemical contents. What is the function of these chemicals?

17. Name the major types of proteins found in human blood and state their function. 3

18. Draw a sectional view of human kidney and label any four parts in it. 3

OR

Classify the types of nephron and compare them.

19. What is micturition? Describe micturition reflex. 3

20. Give three examples of flagellar movements in animals. 3

21. i] State Why 3

a) Eustachian tube is vital for human ear

b) Choroid layer in the eye is bluish in appearance

c) Limbic system is necessary

22. 3

Hormone		**Target Gland**
(a) Hypothalamic Hormone	:	_____
(b) Thyrotrophin (TSH)	:	_____
(c) Corticotrophic hormone(ACTH)	:	_____

OR

Define the following:

(a) Exocrine gland (b) Endocrine gland (c) Hormone

23. List out the modifications of epidermal system in plants 3

24. Explain types of vascular bundles in plants with example. 3

SECTION - D

25. i) In which part of the digestive system the absorption of following substances take place ? 5

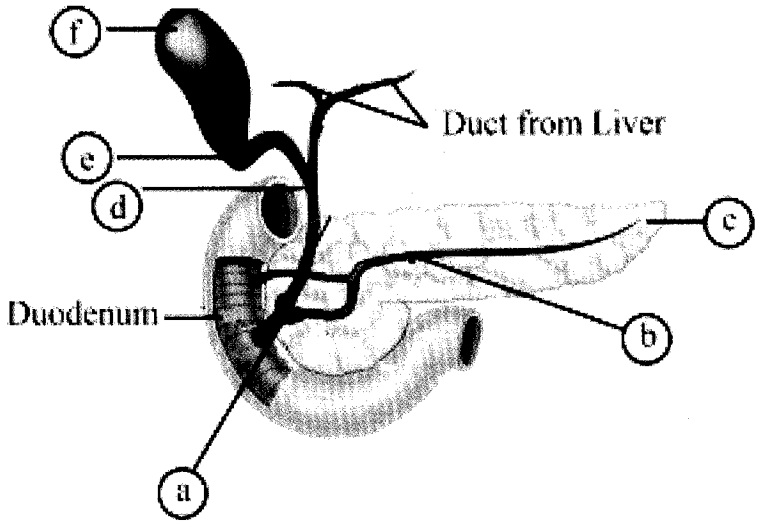
(a) Certain drugs

(b) Glucose, fructose and fatty acids

(c) Water, some minerals and drugs

(d) Simple sugar and alcohol

ii) In the following diagram of duct system of liver, gallbladder and pancreas, label a, b, c, d, e and f :



OR

Describe the different respiratory volumes and state what is meant by functional residual capacity.

26 What is meant by reflex action? Name the components of a reflex arc in correct sequence from receptor up to effector. Support your answer by a diagram. 5

OR

a) Give the names of any one glucocorticoid and one mineralocorticoid.

b) What are the two modes through which the hypothalamus causes the release of hormones by pituitary gland?

c) Mr. Akshay notices that his shoe size has progressively increased. He also observes that shape of his face has gradually changing with protruding lower jaw. What can be the cause for all changes. Name the disorder.

27. What is placentation? Mention the types of placentation seen in Pea, tomato, Dianthus and sunflower. Draw the diagram of any two types of placentation 5

OR

i) Define aestivation. Which type of aestivation is found in China rose, Calotropis Gulmohar and Pea.

ii) Describe the parts of a seed.

End of the Question Paper